SOME SOUTH AFRICAN STEREUMS.

By Paul A. van der Bijl.

(With nine Text-figures.)

Very little attention has thus far been given to the South African fungi belonging to the family Thelephoraceae,* and of which the largest genus is undoubtedly *Stereum*.

Several species of this genus have so far been collected, and Mr. C. G. Lloyd kindly rendered assistance in identifying them.

They occur on trees and old logs principally, and a few grow on the ground. The fructifications of some species are stipitate, whereas others form shelf-like outgrowths on the wood or trees on which they grow or occur flat on these substrata. The hymenium or spore-bearing part is on the under surface of the fructification (except, of course, when these are flat on the substratum), and between the basidia there may be variously formed colourless outgrowths called cystidia.

While not at this stage attempting to give a key to the species, we will for convenience divide them into (1) Stipitate species, (2) Sessile species.

1. Stipitate Species.

Stereum glabrescens, Berk. and Curt. (Fig. 1.)

Plants stipitate, single, or a few rising from a common mycelial pad;

Fig. 1.

* A smooth hymenium is characteristic of the Thelephoraceae, and the genus *Stereum* is distinguished from other genera of the family by its context tissue of several layers, of which the intermediate is normally composed of longitudinally arranged hyphae.

pileus flabelliform, 1·5–5 cm. long, 1·5–6 cm. broad, when young evidently at times infundibuliform and splitting on one side, zoned, finely velvety, chestnut-coloured ; margin thin, lobed, lighter than pileus ; stalk ·5–1 cm. long × 1–3 mm. thick, velvety, brown ; hymenium even, pinky-buff, spores hyaline, subglobose, 4 μ diam.

Not an unfrequent fungus in the native bush of Zululand. W. Haygarth.

Stereum proximum, Lloyd. (Fig. 2.)

Plants usually growing densely clustered ; pileus thin spathulate to suborbiculate, attached by a reduced base, upper surface finely velvety, light cinnamon to light ochre, partly glabrous with age, concentrically

Fig. 2.

zoned, ·5–5 cm. broad, 1·5–3·5 cm. high ; *hymenium reddish bay*, with a waxy appearance ; encrusted cystidia scanty, 49 μ × 14 μ, projecting beyond the hymenium ; spores globose, 4 μ diam.

Gillitts, Natal. W. Haygarth.

The finely velvety surface, combined with habit of growth and waxy, reddish-bay hymenium, should aid in recognising this fungus.

2. Sessile Species.

Stereum australe, Lloyd. (Fig. 3.)

Pileus coriaceous, attached by the reflexed side or broadly centrally, densely tomentose, becoming concentrically furrowed, brown to ashy ; about ·5–1 mm. thick ; margin entire ; hymenium even, smooth, grey to light fawnish, *with coloured conducting ducts* (*lacticiferous ducts*) *which curve into the hymenium between the basidia* ; ducts, 4 μ diam. ; spores hyaline, flattened on one side, 3 × 4 μ.

Occurs in Natal and the Transvaal.

Few *Stereums* have conducting ducts in the hymenium. Their presence should aid in recognising the above.

Fig. 3.

Stereum bicolor, Fr.

Plants sessile, largely resupinate; pileus soft, 1·5–3·5 cm. broad × 1–1·5 cm. long × ·5–2 mm. thick, surface zonate or azonate, faintly villous, becoming glabrous, *light umber brown*; hymeniun even, glabrous, *white*; intermediate tissue umber brown, darker than surface; cystidia encrusted, spores hyaline, 4–5 × 3–4 μ.

Decaying wood at Durban, by P. van der Bijl.

This species is recognisable by its soft consistency, the contrast in colour between the upper and the under surface, and the colour of the intermediate layer.

Fig. 4.

Stereum cinereum, Lev. (Fig. 4.)

Plants sessile, effused—reflexed, pileus coriaceous, cuneate, thin, some-

what flexible to firm, laterally connate, 1·3–2·5 cm. broad × 1·4 cm. long × ·5–1 mm. thick, surface concentrically zoned, sulcate, tomentose, brown to pale and ashy, margin undulate to lobed ; hymenium even, pinky-buff, cystidia absent ; spores hyaline, flattened on one side 4–5 × 2 μ.

Gillitts, by W. Haygarth.

This appears close to *Stereum lobatum*, with surface more sulcate and more densely pubescent and general appearance more firm.

Stereum hirsutum (Wild.), Fr. (Fig. 5.)

Plants sessile, effused—reflexed, coriaceous, drying firm ; pileus imbricate, surface strigose—hirsute, zoned, concentrically furrowed, ochraceous buff

Fig. 5.

becoming grey in age, connate, 1·5–4 cm. broad × 1·5–6 cm. long × 1 mm. thick ; hymenium even, buff-coloured ; spores hyaline, flattened on one side, 6·5–7·5 × 2–2·5 μ ; cystidia absent.

A very common fungus on old logs all over South Africa. Also a wound parasite on fruit and other trees.

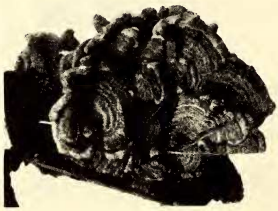

Fig. 6.

Stereum Kalchbrenneri, Mass. (Fig. 6.)

Plants sessile, pileus coriaceous, dimidiate to reniform, attenuated at

attachment, usually clustered, laterally connate, 3–4·5 cm. across, ·5–1 mm. thick; surface concentrically zoned and furrowed, densely strigose, with bright cinnamon-brown hairs; hymenium smooth, ochraceous to lilaceous, spores (*teste* Massee) ellipsoid, hyaline, 7 × 4·5 μ.

Locality.—Eastern Cape Province, on logs of *Rhus laevigata*, by J. D. Keet.

Like *St. vellereum*, this species is also close to *St. hirsutum*. The surface is brighter coloured, and the plants as a whole usually larger and more robust. Appears to be rare.

Stereum lobatum (Kunze), Fr. (Fig. 7.)

Plants sessile, imbricate; pileus coriaceous, thin, somewhat flexible, cuneate, laterally connate, narrowly attached; 5–10 cm. broad × 3–7 cm. long × ·5 mm. thick, surface with multi-coloured zones, finely pubescent

Fig. 7.

to subglabrous; margin thin, undulate to lobed; hymenium even, pinky-buff, cystidia absent; spores hyaline, flattened on one side, 4 × 1·5 μ.

A common South African species; Cape, Natal, and Transvaal.

Stereum durbanense, sp. n., P. v. d. B. (Fig. 8.)

Plants perennial, sessile, effused—reflexed; pileus thick, corky, drying firm and brittle, 2–6 cm. broad × 1–3 mm. thick, imbricate; surface concentrically sulcate, tomentose, cinnamon, changing to grey in old specimens; margin entire; hymenium even, light fawn, spores hyaline, 3–4 μ.

At Durban on old logs.

St. subpileatum has encrusted cystidia. These we do not find in the Durban specimens. Apart from this, the specimen appears close to *St.*

subpileatum, and is so referred by Mr. Lloyd, who notes the absence of cystidia.

Fig. 8.

Stereum tomentosum, n. sp., P. v. d. B. (Fig. 9.)

Pileus coriaceous—corky, largely resupinate, with free margin, ·5–1 cm.; surface tomentose with pad up to 1 mm. thick, tan to old gold and becoming chocolate with age, concentrically sulcate in better-developed specimens ;

Fig. 9.

margin thick, entire ; hymenium pale lilac ; in structure 1–2 mm. thick (including pad), with a narrow, horny, reddish-brown zone beneath the pad, beneath which the tissue is a light fawn ; spores not found.

Locality.—Collected at Durban on dead log by P. van der Bijl.

Stereum vellereum, Berk.

Plants thin, almost membranous, sessile or effused-—reflexed ; pileus coriaceous, tough, imbricate, laterally connate, often attenuated at attach-

ment, 1·5–2·5 cm. long × 1–2 cm. broad × ·3 mm. thick; surface densely strigose with greyish-white hairs, concentrically furrowed; margin thin, entire to lobed, incurved in drying; hymenium pale ochraceous, smooth; spores (*teste* Massee) hyaline, subglobose, 4–5 μ.

Locality.—On old logs of *Quercus* sp. in the Paarl district, by P. van der Bijl.

Close to the common *St. hirsutum*, but thinner and paler in colour.

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